

# Process control that keeps its gains

Conventional APC benefit fades after commissioning. Ore and equipment change, models drift, and loops go back to manual. **Our models don't degrade, by design.** The platform retrains them every 10–30 minutes, so they always match the plant as it runs today.

**10–30 min**

How often the platform retrains its process models

**3+ years**

Of production use, with no model degradation

**10**

Closed-loop deployments at five sites, current platform

**0**

Model re-identifications needed across the ten

## Why the gain holds

|                  | Conventional APC                                                               | Conundrum                                                                   |
|------------------|--------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| Process models   | Identified once from plant step tests. They drift as ore and equipment change. | <b>Retrained every 10–30 minutes.</b> They stay current without step tests. |
| Keeping the gain | Periodic re-identification and step-test campaigns.                            | <b>None needed</b> across ten closed-loop deployments at five sites.        |
| Plant scope      | Circuit by circuit. Plant-wide scope usually means simplified models.          | <b>One controller across connected circuits,</b> without simplified models. |
| New controllers  | Usually a vendor project, and the licence cost often grows with each one.      | <b>Your engineers build and run them.</b> The licence fee doesn't change.   |

## Delivered at Tier 1 global miners: closed loop, current platform

### Large Australian iron ore processing facility

Thickener, flocculant feed control only      Plant bottleneck removed; plant feed rate **+1.6–1.8%**

Hydrocyclone classification      Classification quality variability **–55 to –59%**

### Three large sulphide concentrators: copper-gold and nickel-copper

Crushing and milling      Throughput **+2.6%** (crushing), **+2.9%** (AG), **+3.5%** (ball), **+1.4%** (SAG)

Flotation      Recovery **+0.65 pp** (copper, accepted by the client) and **+0.8 pp**

Also delivered: AG mill discharge time before shutdown **–33%**; flash smelting furnace matte composition stability **+30%**.

### On top or instead

Runs on top of your current control system or replaces it, depending on the site.

### On-premises, within limits

No outbound network dependency. Hard and soft limits on every controller variable. On a fault, back to manual.

### Operators in charge

One click moves between advisory and autonomous. Start in advisory; go closed loop when ready.

## How we start

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### 1 Value estimate

A one-page estimate of the benefit range for your plant. No charge.

### 2 Data assessment

A back-test on your historian data, under NDA. Nothing is installed on site.

### 3 Closed-loop pilot

One circuit. 4 weeks to deploy, then 4–8 weeks measured on a pre-agreed baseline.

### 4 Licence

The controller stays in production and scope widens circuit by circuit.